WHAT IS CLAIMED IS:

1. A printer comprising:

at least one light source for generating light;

a spatial light modulator, disposed in a traveling path of said light, including plural micromirrors arranged in at least one array, and individually shiftable between first and second positions different in a direction;

a pick-up section, disposed in a traveling path of said light reflected by said plural micromirrors in said first position, for picking up a picture image in photo film illuminated by said light, to output image data;

a printing projecting optical system, disposed in a traveling path of said light reflected by said plural micromirrors in said second position, for focusing and recording a print image to photosensitive material;

a controller for control in a pick-up mode and a printing mode;

wherein when in said pick-up mode, said controller sets said plural micromirrors in said first position, to illuminate said picture image in said photo film, and operates said pick-up section to obtain said image data;

when in said printing mode, said controller selectively sets said plural micromirrors in said second position according to said image data, for recording of said print image with said printing projecting optical system.

2. A printer as defined in claim 1, further comprising a pick-up optical system for focusing said light on said pick-up section upon being passed through said picture image in said photo film.

3. A printer as defined in claim 2, wherein said pick-up section includes an image area sensor, said at least one

array is plural arrays, and said plural micromirrors are disposed in a matrix form corresponding to a frame shape.

4. A printer as defined in claim 3, further comprising:

a photo film feeder, actuated after operation of said pick-up section, for feeding said photo film by one frame of said picture image;

a photosensitive material feeder, actuated after recording of said printing projecting optical system, for feeding said photosensitive material by one frame of said print image.

5. A printer as defined in claim 4, wherein said controller drives said photosensitive material feeder while in said pick-up mode, and drives said photo film feeder while in said printing mode.

6. A printer as defined in claim 4, wherein said controller controls said at least one light source in different conditions between said pick-up mode and said printing mode.

7. A printer as defined in claim 6, wherein said photosensitive material is color photographic paper;

said at least one light source is first, second and third light sources, driven selectively, for generating respectively red, green and blue light, to expose said photosensitive material.

8. A printer as defined in claim 7, wherein said controller controls said first, second and third light sources in conditions different therebetween.

9. A printer comprising:

at least one light source for generating light;

a spatial light modulator, disposed in a traveling path

of said light, including plural micromirrors arranged in a matrix form, and individually shiftable between first and second positions different in a direction;

an externally observable indicator screen;

an indicating projecting optical system, disposed in a traveling path of said light reflected by said plural micromirrors in said first position, for projecting an image to said indicator screen;

a printing projecting optical system, disposed in a traveling path of said light reflected by said plural micromirrors in said second position, for focusing and recording an image to photosensitive material;

a controller for control in a simulating mode and a printing mode;

wherein when in said simulating mode, said controller selectively sets said plural micromirrors in said first position according to image data, for indication of a simulated image according to said image data with said indicating projecting optical system;

when in said printing mode, said controller selectively sets said plural micromirrors in said second position according to said image data, for recording of a print image according to said image data with said printing projecting optical system.

10. A printer as defined in claim 9, wherein said controller controls said at least one light source in different conditions between said simulating mode and said printing mode.

11. A printer as defined in claim 10, wherein said indicator screen includes a screen plate through which at least part of light incident thereon is transmissible, and

which has a screen inner face and a screen outer face;

said controller, when in said simulating mode, determines micromirrors among said plural micromirrors to be set in said first position so as to project said simulating image in an inverted manner to said screen inner face.

12. A printer as defined in claim 11, wherein said photosensitive material is color photographic paper;

said at least one light source is first, second and third light sources, driven selectively, for generating respectively red, green and blue light, to expose said photosensitive material.

13. A printer as defined in claim 12, wherein said controller controls said first, second and third light sources in conditions different therebetween.

14. A projector comprising:

at least one light source for generating light;

a spatial light modulator, disposed in a traveling path of said light, including plural micromirrors arranged in a matrix form, and individually shiftable between first and second positions different in a direction;

a pick-up section, disposed in a traveling path of said light reflected by said plural micromirrors in said first position, for picking up a picture image in photo film illuminated by said light, to output image data;

a projecting optical system, disposed in a traveling path of said light reflected by said plural micromirrors in said second position, for focusing a projected image on a projecting position;

a controller for control in a pick-up mode and a projecting mode;

wherein when in said pick-up mode, said controller sets

said plural micromirrors in said first position, to illuminate said picture image in said photo film, and operates said pick-up section to obtain said image data;

when in said projecting mode, said controller selectively sets said plural micromirrors in said second position according to said image data, for projection of said projected image with said projecting optical system.

15. A projector as defined in claim 14, further comprising a pick-up optical system for focusing said light on said pick-up section upon being passed through said picture image in said photo film.

16. A projector as defined in claim 15, wherein said controller controls said at least one light source in different conditions between said pick-up mode and said projecting mode.

17. A projector as defined in claim 16, wherein said at least one light source is first, second and third light sources, driven selectively, for generating respectively red, green and blue light.

18. A projector as defined in claim 17, wherein said controller controls said first, second and third light sources in conditions different therebetween.